

PATENT CLAIMS

1. An arrangement for using osteoinductive material

5 to induce bone and/or increase the stability of an implant (5) which is fitted in a jaw bone hole (4) created by tooth root extraction and where, in an initial stage, the implant is on the one hand anchored or fitted in the hole via its inner parts
10 (5b) and, with its outer parts (5a), extends into a part (4a) of the hole which has a cross-sectional area (d') exceeding the cross-sectional area (D') of the outer parts (5a) of the implant, and, on the other hand, is arranged to form a
15 closed space (4a) together with soft tissue, with or without periosteum, characterized in that the osteoinductive material consists of growth-stimulating substance(s) (GSS) arranged on or in the implant, for example on its outer surface or
20 outer thread, at its outer parts (5a), which substance or substances, in a stage of incorporation following the initial stage, pass outward into body fluid (9) which has penetrated into the closed space and interact with cells
25 present in the fluid so that new bone is formed around the outer parts (5a) of the implant.

2. The arrangement as claimed in patent claim 1, characterized in that the growth-stimulating substance or substances is/are arranged in principle only on or at said outer parts of the implant.
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3. The arrangement as claimed in patent claim 1 or 2, characterized in that the growth-stimulating substance or substances is/are arranged as one or more layers lying on the outside of the implant's outer surface or outer thread.
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4. The arrangement as claimed in any of patent claims 1-3, characterized in that the implant is arranged with a reservoir function for the growth-stimulating substance or substances and possibly other bone-growth-stimulating means and/or means increasing bone volume and/or means producing new bone.

5 10 5. The arrangement as claimed in patent claim 4, characterized in that the reservoir function can consist of outer layers provided with pores and/or oxide layers on at least said outer parts (5a).

15 6. The arrangement as claimed in any of patent claims 1-5, characterized in that bone substitute is arranged in parts of the closed space (4a), for example near to or on said outer parts (5a), together with said growth-stimulating substance(s).

20 25 7. The use in a jaw bone hole created by tooth root extraction which has given the hole (4) a cross-sectional area at outer parts (4a) of the hole exceeding the hole's cross-sectional area at its inner parts (4b), characterized in that, for new production of bone in a space (4a) closed with periosteum between an implant (5) and the wall (4a') of the hole, use is made of growth-stimulating substance(s) grafted onto the implant and interacting with cell-containing body fluid (10) which penetrates or has penetrated into the space (4a).

30 35 8. The use as claimed in patent claim 7, characterized in that growth-stimulating substance(s) included in layers alone or together

with other material is/are used as a source of new production of bone.

9. The use as claimed in patent claim 7 or 8,
5 characterized in that said growth-stimulating substance(s) is/are used together with volume-increasing/stimulating substrate, for example bone substitute.

10 10. An implant which can be fitted in a jaw bone hole (4) created by tooth root extraction and arranged with its outer parts (5a) extending into a part (4a) of the hole which has a cross-sectional area (d') exceeding the cross-sectional area (D') of
15 said outer parts, characterized in that it is on the one hand provided with osteoinductive material in the form of growth-stimulating substance(s) (GSS) arranged, in connection with the jaw bone hole, to interact with cells in the body fluid so that new bone is formed, and, on the other hand, its inner parts are formed in close or substantial
20 conjunction with the extent of the hole in the jaw bone at the inner parts.

25 11. The implant as claimed in patent claim 10, characterized in that the implant is arranged to extend in substantially the same line as the tooth root.

30 12. The implant as claimed in patent claim 10 or 11, characterized in that the implant, at its inner parts, is curved in relation to the main longitudinal extent of the implant.

35 13. The implant as claimed in patent claim 12, characterized in that the implant is designed with two or three parts completely or partially curved in relation to the main direction.

14. The implant as claimed in any of patent claims 10-13, characterized in that, when it is fitted in the hole, one or more spaces can be formed between the inner parts and the hole's wall(s), in which space or spaces said interaction is intended to take place.

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